IP-230

S-319

PN791

SECRET/CONTROL

Note: The classification of this memorandum must be raised to conform to the classification of the draft it covers.

Date 18 Sept 1951

MEMORANDUM FOR CHIEF, REPORTS DIVISION

SUBJECT: Transmission of Draft Report

ENCLOSURE: Project No. IP-230 Geography of Three Soviet Urban Regions -- Part II -- Verkhne-Neyvinskiy

1. Enclosure is forwarded herewith for review and publication.

2. This draft report has been coordinated informally with the organizations checked below:

Within O/RR:				Within CIA:		Outside CIA:	
D/A		D/G		O/CI		State (OIR)	
D/M	X	D/Z		O/SI	X	Army (G-2)	
D/S	X	D/B		O/NE		Navy (ONI)	
D/I				Other		Air (OIN)	X
						Other	

3. Maps and/or Graphics to be included in this report and arrangements completed for their production by the Geographic Division are as follows: The map is at present in reproduction and will be delivered to OSI by D/G when it has been completed.

4. The following distribution of the completed report is recommended:

	Standard	X	Other (specify)
X	Requester only (2 copies)		2 copies to [redacted]
	US Officials only		1 copy to D/R

25X1A

5. Responsibility for consultation with D/R, while the project is under review, is assigned to [redacted] ext. 560.

6. Comments: Two copies of this report should be sent to the requestor, [redacted], OSI.

25X1A 25X1A

Chief [redacted]

Geographic Division

Division

SECRET/CONTROL

GEOGRAPHY OF THREE SOVIET URBAN REGIONS

PART II — VERKHNE-NEYVINSKIY

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GEOGRAPHY OF THREE SOVIET URBAN REGIONS

PART II -- VERKHNE-NEYVINSKIY

I. Location

The town of Verkhne-Neyvinskiy (57°16'N-60°09'E) is located on the sloping piedmont lying between the Urals and the West Siberian Plain, within the Mining and Industrial Area of the Central Urals (Sredniy Ural). This sector of the Urals, generally defined as lying between 54°30'N and 59°30'N, is noted for its well-developed mining, industry, and transportation. The town itself is situated at the northern tip of the Verkhne-Neyvinskiy Pond (Prud) and lies within the Sverdlovsk Oblast, approximately 55 kilometers (34 miles) northwest of the oblast seat.

Principal settlements in the general Verkhne-Neyvinskiy area are Nev'yansk (57°29'N-60°14'E), 27 kilometers (17 miles) north; Neyvo-Rudyanka (57°21'N-60°09'E), 8 kilometers (5 miles) north; Belorechka (57°19'N-60°02'E), 9 kilometers (6 miles) northwest; Verkhniy Tagil (57°23'N-59°57'E), 16 kilometers (10 miles) northwest; Tavatuy (57°09'N-60°14'E), 14 kilometers (9 miles) south-southwest; Kalinovo (57°08'N-60°10'E), 14 kilometers (9 miles) south; and Taraskovo (57°07'N-60°05'E), 16 kilometers (10 miles) south-southwest. Within the area there are also two railroad stations that are not located in or adjacent to settlements -- these are the Murzinka railroad station (57°10'N-60°06'E), 12 kilometers (7 miles) south of Verkhne-Neyvinskiy, and the Tavatuy railroad station (57°05'N-60°09'E), 21 kilometers (13 miles) south.

Within the area, the most prominent physical features are (1) the eastern slope of the Central Urals, (2) the piedmont, (3) Lake (Ozero) Bol'shoy Tavatuy, and (4) Verkhne-Neyvinskiy Pond, a narrow elongated body of water that extends south from the edge of town for a distance of approximately 19 kilometers (12 miles), (5) the Neyva River (Reka), which flows northward through Verkhne-Neyvinskiy Pond to the Ob' drainage system; and (6) Neyvo-Rudyanka Pond, a swampy area four kilometers (2-1/2 miles) north of the town of Verkhne-Neyvinskiy, which is connected with the Verkhne-Neyvinskiy Pond by the Neyva River.

II. Description of the Area

A. Physical Setting

The piedmont, on which the town of Verkhne-Neyvinskiy is located, is a narrow longitudinal zone that lies between the foothills of the Urals on the west and the West Siberian Plain on the east. In relief it is a transitional zone with a general eastward slope. It is crossed by a number of east-flowing streams from the mountains, which cut the foreland into a succession of roughly parallel swells and valleys. Many of the valleys are narrow, with steep gradients in their upper reaches and moderate gradients as they flow out into the plain. Approximately 110 kilometers (68 miles) east of the town of Verkhne-Neyvinskiy, is the low but distinct escarpment that marks the edge of the West Siberian Plain. Beyond the escarpment the nearly featureless plain continues eastward for approximately 2,400 kilometers (1,491 miles) to the Yenisey River.

In the western part of the Verkhne-Neyvinskiy area are the low foothills and hill-like mountains of the Central Urals, which continue westward for a distance of about 75 kilometers (47 miles). The mountain ridges within this area have been worn down from level or slightly undulating surfaces and are interspersed with individual hills of generally rounded form, many of which have almost flat tops. The elevation of the Urals west of Verkhne-Neyvinskiy ranges from 300 to 500 meters (about 985 to 1,640 feet), with individual peaks rising as high as 614 meters (2,014 feet). The most outstanding physical features in the immediate foothill area are Mount (Gora) Bunar, 609 meters (1,998 feet), 9 kilometers (5-1/2 miles) to the west-northwest, and Mount Sem' Bratyev, 422 meters (1,383 feet), 6 kilometers (4 miles) to the southeast of the town of Verkhne-Neyvinskiy.

The Verkhne-Neyvinskiy area is only moderately suitable for underground installations because of the granite and granite-like rocks that predominate. Although difficult to excavate, this type of rock is strong enough to support underground installations. Other favorable features are an abundance of steep slopes and the large number of mines in the area.

Soils of the area are largely podsolic, with some areas of sand along river beds. The soil varies in depth from deep to shallow and is intermixed with rock fragments. The underlying rocks are sedimentary and crystalline.

B. Hydrography

The town of Verkhne-Neyvinskiy lies within the Siberian drainage system. The rivers and lakes of the area connect, through its tributaries, with the Ob' River, which flows into the Kara Sea. The most prominent hydrographic features are (1) Verkhne-Neyvinskiy Pond and Lake Bol'shoy Tavatuy, (2) the Neyva River, and (3) Neyvo-Rudyanka Pond.

Verkhne-Neyvinskiy Pond, which was formed artificially by the damming of the Neyva River, is an elongated body of water extending in a north-south direction for approximately 9 kilometers (6 miles) and is from 1-1/2 to 2 kilometers (approximately 1 mile) in width. The average depth is about 3 meters (10 feet), the surface area approximately 15 square kilometers (about 6 square miles), and the total volume between 40 and 50 million cubic meters (about 470-490 million cubic feet). Lake Bol'shoy Tavatuy, to the south and slightly to the east, is also elongated in shape and is connected with the pond by a narrow channel. The lake extends in a north-south direction for approximately 11 kilometers (7 miles), is from 1-1/2 to 2-1/2 kilometers wide, and has a surface area of approximately 24 square kilometers (9 square miles). The depth is reported to be 5 meters (16 feet) and the total volume about 113 million cubic meters (1,330 million cubic feet). Together, the lake and pond have a total volume of about 163 million cubic meters, (about 1,920 million cubic feet), of which 90 million cubic meters (about 1,060 million cubic feet) are classified as "useful" by a 1953 Soviet source. It is presumed that the word "useful" refers to the volume of water that could be used for electric power production. A 1945 Soviet source states that the lake and pond have an elevation of 259 meters (850 feet) above sea-level.

The dam, located at the northern tip of Verkhne-Neyvinskiy Pond, was constructed in 1762 and is described as an earthen dam faced and

capped with granite. It is approximately 730 meters (2,395 feet) in length, 30-35 meters (98-115 feet) in width, and 7 meters (23 feet) in height. According to a 1933 Soviet source, the dam was in a good state of preservation at that time, though one of the flood gates was damaged. No postwar data are available concerning the dam or its installations.[1]

The Neyva River flows northward from its source at the foot of Mount Karaul'naya and enters Verkhne-Neyvinskiy Pond at its southwest extremity. From the northern end of the pond, at the dam site, it continues its northward course for approximately 4-1/2 kilometers 2-1/2 miles) and enters the Neyvo-Rudyanka Pond area. Upon leaving the pond, the river continues northward for approximately 17 kilometers (11 miles) and enters Nev'yansk Pond. At a distance of about 300 kilometers (186 miles) from its source, the Neyva River joins the Nitsa River system, which flows into the Ob' River and eventually into the Kara Sea.

Neyvo-Rudyanka Pond, located between the towns of Verkhne-Neyvinskiy and Neyvo-Rudyanka, is believed to be a very shallow body of water with no well defined shore line separating the pond from the surrounding swamps. Several Russian sources show no pond in this location, and at least one calls it a "drained pond." It may be assumed, however, that in periods of heavy precipitation there is at least a surface of water, but that swamp vegetation may cover the greater part of the area during dry periods.

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1. It is believed that there is but one outlet at this dam, but two sources have indicated otherwise. A 1933 Soviet source states that there are two water outlets, and a 1905 Russian map shows a second river flowing in a northernly direction from the dam. This river, flowing to the east of the Neyvo-Rudyanka Pond, is shown as joining the Neyva River just southeast of the town of Neyvo-Rudyanka. The river symbol, as shown on the map, is considered to be a cartographic error since the river could not follow this course without flowing uphill. It is possible that a river symbol was inadvertently used instead of a road symbol. The map prepared in conjunction with this report (CIA 11833) shows a road in this location.

In addition to the major hydrographic features, small lakes and ponds are scattered throughout the Verkhne-Neyvinskiy area, and a large number of small- to medium-sized rivers flow out from the foothills of the Urals west of the town. Swamps are numerous and increase in number and size from west to east.

c. Vegetation and Agriculture

The vegetation zone within which Verkhne-Neyvinskiy is located is also transitional. To the west, the Urals are almost entirely covered by a dense coniferous forest. Fir and spruce forest is most common, with occasional stands of pine. Larch is also found, particularly where the underlying rocks are granite and peridotite. Towards the south larch becomes more common and birches become more numerous, with even solid stands occuring around Sverdlovsk. Towards the east the coniferous forest is interspersed with a few stunted linden trees. Throughout the forest is a dense underbrush of shrubs and berry plants, with tall grasses along the streams. Many burned-over patches contain tangled growths that are man-high or taller. The forests abound in deer.

The quagmires and swamps found in low places within the area have typical swamp vegetation. Toward the east, large poorly-drained areas on the flat tops of interstream swells are typically covered with peat bogs, and in the vicinity of Tavatuy several peat beds are being worked.

The agriculture of Sverdovsk Oblast, in which Verkhne-Neyvinskiy is located, is of local importance only. It occupies a comparatively small part of the area, since approximately 60 percent of the oblast is wooded or in bushes. Meadows and grazing land cover more than 9 percent of the land. A considerable part of the agricultural requirements of the area must be brought in from other parts of the USSR. An effort is being made to expand vegetable growing, dairy farming, and hog raising in the mining districts, but information on progress is lacking. Though the main grain-growing areas of the oblast are to the south, the Verkhne-Neyvinskiy area produces some summer wheat, oats, and rye. Potatoes are probably the most important vegetable crop of the area.

D. Minerals

1. Exploited

a. Metallic -- Many important metallic minerals are found on the eastern slopes of the Urals. Those being exploited in the Verkhne-Neyvinskiy area are chrome, gold, iron, lead, copper, and nickel. Platinum is also found in the area, but it is usually obtained as a by-product. Of the mines, the largest number are chrome mines, with gold and iron ranking second and third.

b. Non-metallic -- There are indications that talc and quartz are being exploited in the Verkhne-Neyvinskiy area.

2. Not exploited

a. Metallic -- There is some evidence that zinc occurs in the area, and it is possible that zinc is currently being exploited north of Verkhne-Neyvinskiy in the vicinity of Kirovgrad (57°27'N-60°03'E). None of the evidence, however, indicates that zinc is being exploited within the Verkhne-Neyvinskiy area.

b. Non-metallic -- The type and extent of unexploited non-metallic mineral deposits within the area is not known.

3. Radio-active minerals and deposits -- There are no known radio-active minerals or deposits in the Verkhne-Neyvinskiy area.

E. Climate

Although climatic data for Verkhne-Neyvinskiy are not available, records are available for Sverdlovsk, to the southeast, which lies within the same general climatic region.

For the Verkhne-Neyvinskiy area the continental air masses are of primary importance, with only occasional intrusions of maritime air. The prevailing winds are from the north and northeast in the summer and from the west in the winter. For this reason, the eastern slopes of the Urals generally have less snow than the western slopes. The winter storms from the east are characterized by penetrating cold. Maximum cloudiness occurs in autumn and winter and minimum cloudiness in early summer. Precipitation is highest during the summer months with the high probably in July. Maximum temperatures probably occur in July also.

CLIMATIC DATA FOR SVERDLOVSK

1. Mean Precipitation (inches)[1]

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.	Years Record
0.6	0.5	0.5	0.7	1.9	2.6	2.9	2.5	1.5	1.1	1.1	1.0	16.9	18

2. Least Monthly and Annual Precipitation (inches)[2]

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.	Years Record
0.1	0.2	*	*	1.0	1.3	1.2	0.6	0.6	0.2	0.2	0.4	14.8	10

* Less than 0.05 inch.

3. Maximum Precipitation in 24 hours (inches)[3]

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.	Years Record
0.6	0.3	0.6	1.0	1.3	1.8	3.0	1.8	1.3	0.8	1.1	0.6	3.0	18

4. Mean Number of Days with Snowfall[4]

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.	Years Record
12	10	7	6	2	*	0	*	2	10	15	16	80	18

* Less than 0.5 day.

5. Mean Number of Days with Snow on the Ground[5]

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.	Years Record
30	28	31	18	1	0	0	0	1	5	21	30	165	6

1. NIS-26, III, Chapter II, Section 23. Figure 23-17.
2. Ibid. Figure 23-19.
3. Ibid. Figure 23-20.
4. Ibid. Figure 23-22.
5. Ibid. Figure 23-23.

6. Mean Temperature (°F) at 1300 L.S.T.[1]

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.	Years Records
5	15	26	42	57	66	70	66	55	38	19	8	39	20

7. Mean Daily Minimum Temperatures (°F)[2]

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.	Years Record
-5	1	10	26	40	49	54	50	41	28	11	-1	25	18

8. Highest Temperature (°F) at 0700, 1300 and 2100 L.S.T.[3]

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.	Years Record
40	38	58	74	88	92	94	88	86	89	50	39	94	28

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1. Ibid. Figure 23-10.
2. Ibid. Figure 23-11.
3. Ibid. Figure 23-21.

III. Administration

In 1928, following standard Soviet procedure, Verkhne-Neyvinskiy became a rabochiy poselok (workers' settlement).[1] It is still classified as a rabochiy poselok within the Nev'yanskiy Rayon, Sverdlovsk Oblast, in the most recent sources available (1949).

IV. Population

Information on the population of Verkhne-Neyvinskiy is available only in a 1932 German source, which places the population at 4,600, and a 1935 Soviet source, which places the population at 6,300 as of that date.

Though the ethnic composition is not specifically known, the major ethnic group is apparently Great Russian. Several reports indicate that a forced labor camp is located within the settlement, but the number and ethnic composition of the prisoners is not known.

V. Public Utilities and Transportation

A. Power

Verkhne-Neyvinskiy is located within the Central Urals power network, but data on the power requirements of the area are lacking. A 1932 Soviet source indicates that a 35-horsepower station is located at the dam. Various industrial installations are also believed to have their own power plants, but it is not known how much of the industrial power requirements are supplied by such plants. No data are available on transformer stations or power lines.

B. Water

The source of the water supply for Verkhne-Neyvinskiy is not known, but industrial requirements are probably met by drawing water from the nearest lake or stream. The city water supply may be obtained either

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1. The primary criterion for differentiating between a city and a workers' settlement is the presence or absence of urban functions (developed transportation, communications, sewage and water facilities, public buildings, institutions, etc.). When a workers' settlement attains a minimum adult population of 1,000, of whom no more than 25 percent are engaged in agricultural pursuits, a settlement may become a city if and when so designated by the Union Republic.

from the same sources or from wells, since the ground water of the area is suitable.

C. Transportation

1. Local — There is no information as to the existence of a public transportation system within Verkhne-Neyvinskiy or connecting it with nearby settlements.

2. Railroads — The city of Verkhne-Neyvinskiy lies on the Sverdlovsk-Nizhniy Tagil sector of the main north-south railroad of the Urals region. This section of the Sverdlovsk system is electrified and is of standard 5-foot gauge.[1] From a point just south of Shurala (57°26'N-60°10'E), a standard-gauge track extends west to Kirovgrad (57°25'N-60°04'E). A narrow-gauge track running northwest from Neyvo-Rudyanka connects it with Kirovgrad and continues north to Karpushikha and Levikha. Another narrow-gauge track runs southwest from Neyvo-Rudyanka to Dolorechka. From the Murzinka railroad station south of Verkhne-Neyvinskiy, a narrow-gauge track extends east for a short distance to the settlement of Kalinovo.

3. Roads — Two primary roads cross through Verkhne-Neyvinskiy, one from north to south and the other from northeast to southwest. Reports have indicated that some of the main roads of the area, as well as the streets of Verkhne-Neyvinskiy, are metalled. All others are dirt roads, some of which are well maintained and others poorly or not at all. During periods of heavy precipitation and spring thaws, all dirt roads become quagmires. The area also is crossed by an extensive network of forest lanes or trails.

D. Communications

Various sources have indicated that Verkhne-Neyvinskiy has both a postoffice and a telegraph office, but their locations are in doubt. There are no data as to the existence of a telephone system or of a radio station within the town.

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1. Some PW reports indicate (1) that the Sverdlovsk-Kushva section is double-tracked or (2) that the Sverdlovsk--Verkhne-Neyvinskiy section is double-tracked. Neither report has been substantiated.

VI. Industrial Installations

Though the economic structure of Verkhne-Neyvinskiy is based on minor industry, no specific locational or functional data for these installations are available. The installations and all known or reported information concerning their location and products are listed below.

A. Accessory Plant

A 1944 source indicates that the raw materials used by this plant are forged steel pieces, nonferrous metal castings, and rubber products. The finished product is not known.

B. Aircraft Plant

An unconfirmed source, dated 1944, states that an aircraft plant was then under construction in the area.

C. Chromite Beneficiation Plant

D. Iron Mill

E. Fish Canning Factory

One report indicates that such an installation is located in the area.

F. Machinery Plant

This plant is reported to produce cast rods.

VII. Non-Industrial Installations

The town of Verkhne-Neyvinskiy is believed to contain various non-industrial installations such as a church, school, store, and cemetery. No specific data concerning them is available. A 1948 source also indicates that a forced labor camp is located in the town of Verkhne-Neyvinskiy but the location is not given.

APPENDIX A

The town of Verkhne-Neyvinskiy and the immediate surrounding area presents a difficult problem for regional research for the following reasons: (1) the town itself is of minor importance in comparison with the nearby cities of Neyvo-Rudyanka, Kirovgrad, Shurala, and Nev'yansk; (2) following World War II, no PW camps were established in the town or the immediate surrounding area, which might provide sources for interrogation; and (3) there are no known recent large-scale maps of the area.

Because sufficient intelligence data for the area is lacking the following request is made:

1. All maps of the Verkhne-Neyvinskiy region at scales of 1:500,000 or larger that come to the attention of analysts and other intelligence personnel should be forwarded or reported to the Central Intelligence Agency, attention Analysis Branch, Geographic Division.

2. All corrections or additions to this report should be forwarded as indicated above, along with full information concerning the source for the correction.

3. All information obtained that can be plotted on a map should be plotted on CIA 11833, 1:50,000, unless the area covered by such information extends beyond the limits of the CIA map. In this case USAF Target Intelligence Collection Chart, Series 100, Verkhne-Neyvinskiy (9355), should be used for plotting.

PROVISIONAL

VERKHNE-NEYVINSKIY (57°16′N-60°09′E)

CONFIDENTIAL

Railroads
Single track-5′ gauge .... station
Single track-narrow gauge
Roads
Primary
Secondary
Trail or forest lane
Church
Building
Mine
Minerals
Chromium .... Cr
Copper .... Cu
Gold .... Au
Iron .... Fe
Lead .... Pb
Nickel .... Ni
Spot elevation .... •1998
Built up area
Contours
Approximate contours
Fill
Fill dam
Swamp
Wooded area

Boloto .... swamp
Bol'shoy, bol'shaya .... large
Gora .... mountain
Gory, gorka, gorki .... hill, hills
Istok .... source
Log .... ravine
Malyy, malaya .... small
Mys .... cape
Ostrov .... island
Ozero .... lake
Prud .... pond
Reka .... river
1ya, 2ya, 3ya 1st, 2nd, 3rd

CONVERSION OF ELEVATIONS
Feet / Meters

ELEVATIONS IN FEET
Contour interval 35 feet
Scale 1:50,000

BASE: *GEOLOGICHESKAYA KARTA, TSENTRAL'NOY CHASTI VLADENIY VERKH-ISETSKIKH ZAVODOV I MURZINSKAGO UCHASTKA MONETNOY DACHI, 1:84,000, V. V. Nikitina, 1905.*

SOURCES: *ZELENOKAMENNAYA POLOSA URALA: 1:100,000 Geologicheskiy Institut, Akademiya Nauk*
(1) VERKH-NEYVINSKIY I PERVOURAL'SKIY RAYONY, 1939.
(2) VERKHNE-TAGIL'SKIY RAYON, 1939.
USAF TARGET INTELLIGENCE COLLECTION CHART, VERKHNE-NEYVINSKIY, 1:100,000, 1950.
KARTA SVERDLOVSKOGO OKRUGA 1:250,000, Sverdlovskim Okrplanom, 1926.
OSTEUROPA, 1:300,000, General Stab des Heeres, Abteilung für Kriegskarten und Vermessungswesen.
(1) III 58, NISHNIJ TAGIL, 1936.
(2) IV 58, ALAPAJEWSK, 1937.
GEOMORFOLOGICHESKAYA KARTA URALA, Sheet 4. 1:500,000, Ministerstvo Geologii SSSR, Ural'skoye Gosudarstvennoye Geologicheskoye Upravleniye, 1945

TRUE NORTH — MAGNETIC NORTH — approx. 13°37′

11833 CIA, 8-51

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